

Michael Mathioudakis - Curriculum Vitae

CONTACT INFORMATION

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PROFESSIONAL EXPERIENCE

ACADEMIA & RESEARCH

University of Helsinki 2018/03 - today
Assistant Professor.

- Graduate *data science* courses.
- Research on *graph processing, machine learning, database systems, & social networks*.

LIRIS CNRS & INSA Lyon 2017/09 - 2018/02
Maître de Conférences.

- Graduate *data science* courses.

Aalto University 2013/08 - 2017/06
Postdoctoral Researcher.

- Graduate *data science* courses.
- Research on *online polarization, urban computing, graph algorithms*.

University of Toronto 2006/08 - 2013/07
Teaching Assistant. Delivered labs and tutorials on Java, Python, Database Systems, System Modeling and Analysis.

Microsoft Research, Search Labs, California 2010/05 - 2010/08
Research Intern. Performed geolocation analysis on Twitter data.

Yahoo! Research, Barcelona 2009/06 - 2009/09
Research Intern.
Led the team that developed SPINE, an algorithm that identifies a backbone of social networks.

INDUSTRY

Helvia.io 2017/01 - 2017/09
Data Scientist (part-time).
Work on *record deduplication*.

Sometrik 2016/04 - 2016/12
Data Scientist (part-time).
Projects related to *graph simplification, inference of user demographics, burst detection* on Twitter and Facebook.

EDUCATION

University of Toronto 2006/08 - 2013/07
Doctor of Philosophy (Ph.D.) in Computer Science.

National Technical University of Athens 2001/09 - 2006/07
Diploma of Engineering (D.Eng.) in Electrical and Computer Engineering.

PUBLICATIONS

My publication record includes 27 published pieces of work. According to Google Scholar, they've attracted more than **1200 citations** and have **h-index 9**. They have

appeared in the international journals and conferences, including the following Core-A* venues: the International Conference on Very Large Databases (VLDB), the IEEE International Conference on Data Engineering (ICDE), the ACM International Conference on Knowledge discovery and data mining (SIGKDD), the ACM International Conference on Web Search and Data Mining (WSDM), the Web Conference (WWW) and the ACM SIG on Management of Data Conference (SIGMOD - demo).

SIGNIFICANT PUBLICATIONS

Publications related to *graph analysis* and *processing*.

- Gionis, Aristides, Michael Mathioudakis, and Antti Ukkonen. Bump hunting in the dark: Local discrepancy maximization on graphs. In the Proceedings of the **IEEE 31st International Conference on Data Engineering (ICDE 2015)**, pp. 1155-1166. IEEE, 2015. DOI: <https://doi.org/10.1109/ICDE.2015.7113364>. **Core-A* Conference**.
- Michael Mathioudakis, Francesco Bonchi, Carlos Castillo, Aristides Gionis, and Antti Ukkonen. 2011. Sparsification of influence networks. In the Proceedings of the **17th ACM SIGKDD international conference on Knowledge discovery and data mining (KDD '11)**. ACM, New York, NY, USA, 529-537. DOI: <http://dx.doi.org/10.1145/2020408.2020492>. **Core-A* Conference**.
- Kiran Garimella, Gianmarco De Francisci Morales, Aristides Gionis, and Michael Mathioudakis. 2016. Quantifying Controversy in Social Media. In the Proceedings of the Ninth ACM International Conference on **Web Search and Data Mining (WSDM '16)**. ACM, New York, NY, USA, 33-42. DOI: <https://doi.org/10.1145/2835776.2835792>. **Core-A* Conference**.
- Kiran Garimella, Gianmarco De Francisci Morales, Aristides Gionis, and Michael Mathioudakis. 2017. Reducing Controversy by Connecting Opposing Views. In the Proceedings of the Tenth ACM International Conference on **Web Search and Data Mining (WSDM '17)**. ACM, New York, NY, USA, 81-90. DOI: <https://doi.org/10.1145/3018661.3018703>. **Core-A* Conference, Best Student Paper**.

SEMINARS AND INVITED TALKS

- “Polarization on Social Media”. Invited lecture for the course Machine Learning and Modelling for Social Networks, **ETH, Zurich**, May 2017.
- “Polarization on Social Media”. Invited talk at the Methodology Department, **London School of Economics**, London, UK, March 2017.
- “Visualizing Twitter Discussions with NetworkX”. Seminar talk at the **Python Conference (PyCon) Finland**, Helsinki, Finland, November 2016. With Kiran Garimella. URL: <https://youtu.be/rGRuhVKd3D4>.
- “Absorbing Random Walk Centrality”. Talk at **Inria, Lille**, France, May 2015.

EVALUATION OF RESEARCH

I have served as Committee Member or Reviewer for many international journal and conferences, including the following Core-A* venues.

- Journal of Very Large Databases (VLDB Journal),
- International Conference on Data Mining (ICDE),
- International Conference on Web and Social Media (ICWSM),
- ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD),
- IEEE Transactions on Parallel & Distributed Systems (TPDS),
- International World Wide Web Conference (WWW),
- International Conference on Web Search and Data Mining (WSDM).